eDRAGONFLY

Power-Assist Handcycle

User Manual

Rio Mobility

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Website: www.riomobility.com

IMPORTANT!

Consult with your health care professional to determine if the eDragonfly™ is appropriate for you.

DO NOT OPERATE THIS EQUIPMENT WITHOUT FIRST READING AND UNDERSTANDING THIS MANUAL.

IT IS RECOMMENDED THAT INITIAL SETUP OF THIS HANDCYCLE BE PERFORMED BY A QUALIFIED TECHNICIAN, SUCH AS A WHEELCHAIR OR BICYCLE MECHANIC.

AS WITH ANY THREE-WHEELED VEHICLE, SIDE-TO-SIDE STABILITY IS DECREASED COMPARED TO A WHEELCHAIR ALONE, SO USE CAUTION WHEN TURNING AT HIGH SPEEDS.

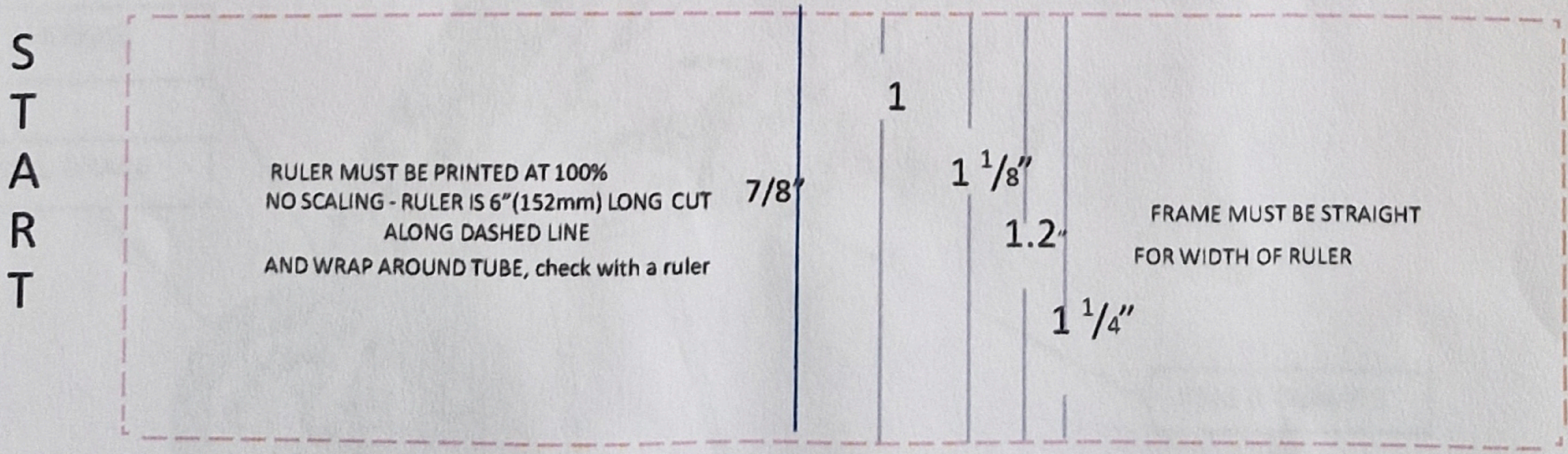
Follow the recommendations in your wheelchair manual.

The eDragonfly™ is intended for use for mobility in sporting and/or recreational purposes only and is not intended as an exclusive means of mobility. Check local vehicle/wheelchair regulations.

The operation of a handcycle involves a certain level of risk and the potential for serious bodily injury.

1. Wheelchair Requirements

Wheelchair Frame Configuration	For a complete listing of compatible wheelchairs, visit riomobility.com. If your wheelchair is not listed, please contact customer service at sales@riomobility.com. The eDragonfly™ can accommodate chairs of seat width 35.5 cm-55.8 cm / 14 inches-22 inches. If outside the range, contact us.
Wheelchair Frame Tube Diameter	The frame tube diameter must be either: 22.2 mm / 7/8 inch, 25.4mm / 1 inch, 28.6mm / 1.125 inch 30.5mm / 1.2 inch, or 31.8mm / 1.25 inch If your tubing is a different shape or diameter contact sales@riomobility.com If you do not know the diameter of your tubing, contact your wheelchair manufacturer or dealer, or cut out the ruler printed below to measure. Wrap the ruler around your tubing and note where the markings line up.
Anti-Tips and Seatbelts	When seated in the wheelchair, your center of gravity must be far enough forward to prevent tipping backwards. IMPORTANT: If the chair is set up such that "wheelies" are easy, it may be too unstable to attach or detach the handcycle. Anti-tips MUST be installed on your wheelchair. A seat belt is also strongly recommended.
Weight	Combined wheelchair and user weight must be less than 130kg/280lb.



RULER MUST BE PRINTED AT 100%
NO SCALING - RULER IS 6"(152mm) LONG CUT ALONG DASHED LINE
AND WRAP AROUND TUBE, check with a ruler

FRAME MUST BE STRAIGHT FOR WIDTH OF RULER

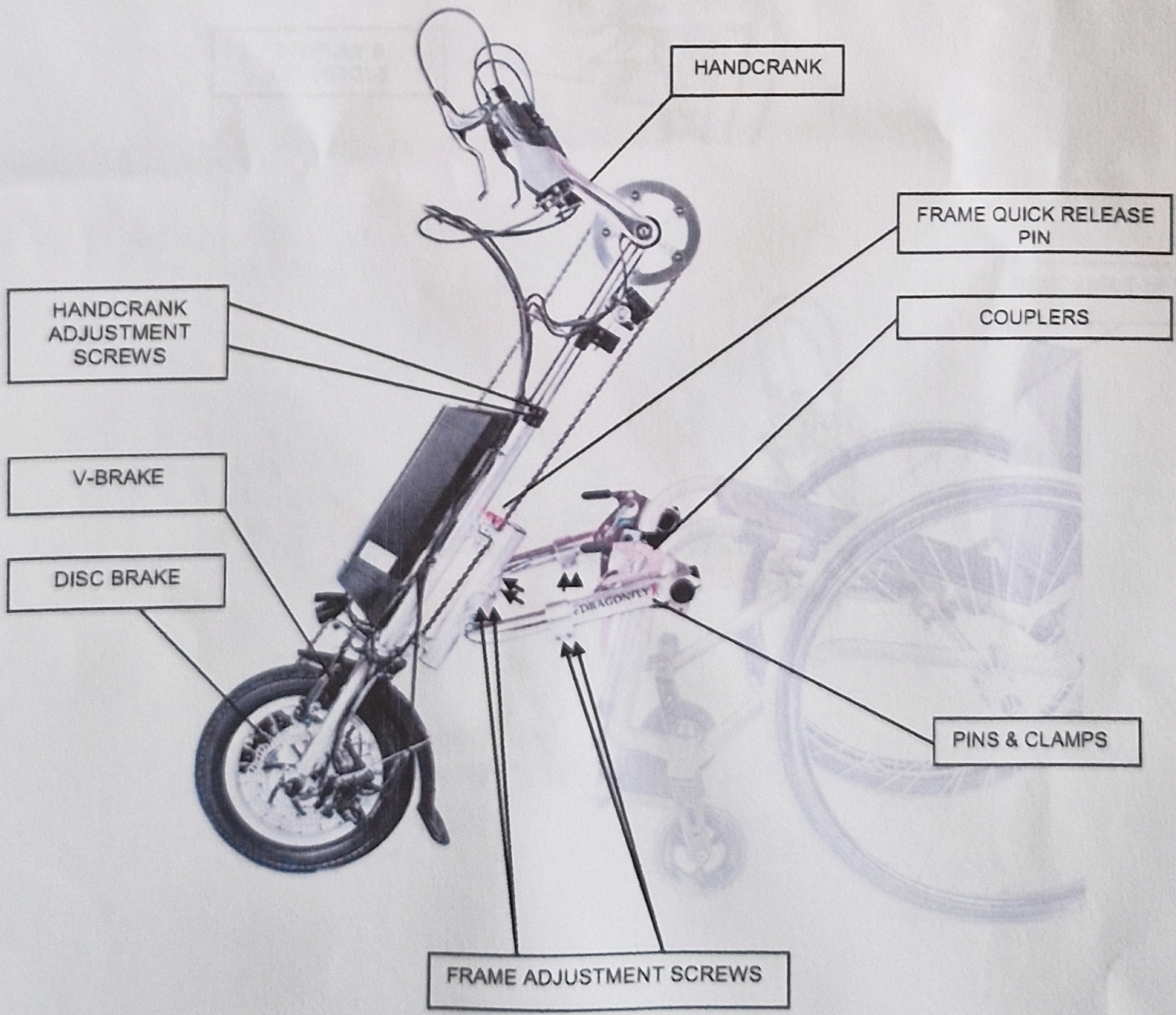
2. Installing The eDragonfly

Visit www.riomobility.com for the eDragonfly installation video:

The installation of the clamp and frame system for the eDragonfly is the same as the Firefly.

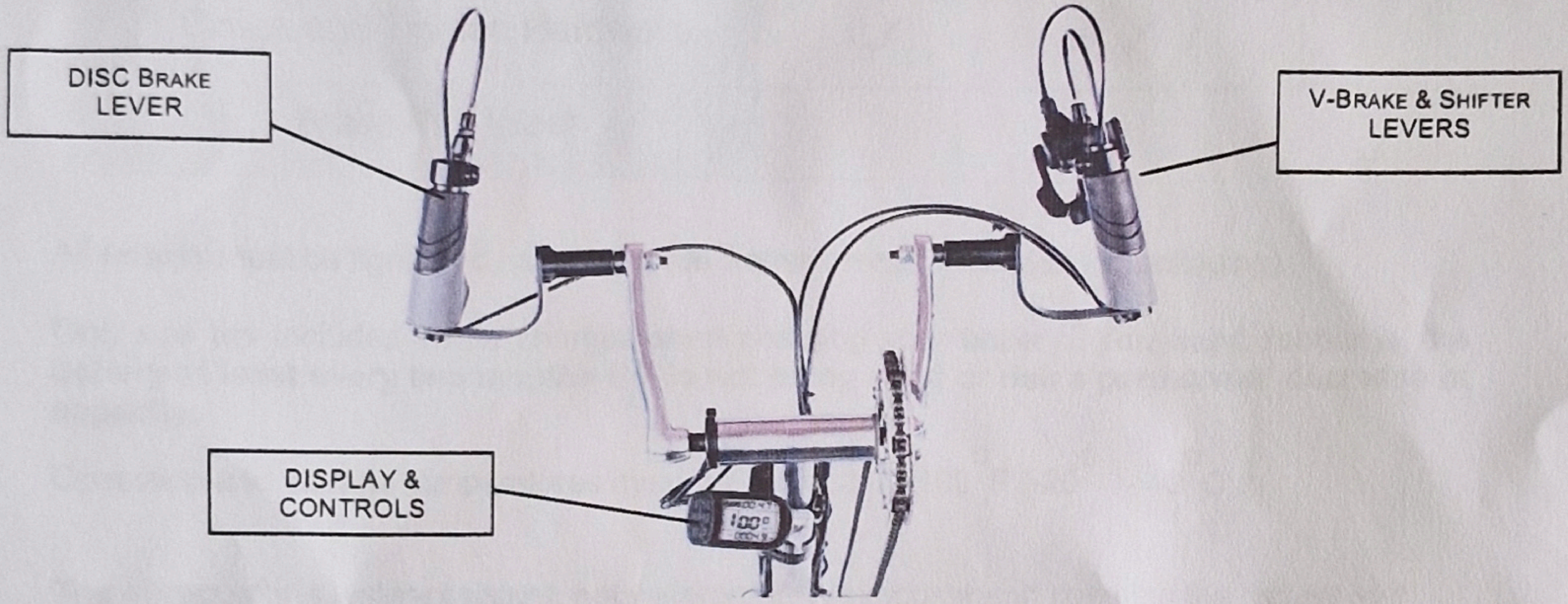
The handcranks can be moved to the closest position, like the handlebars on the Firefly.

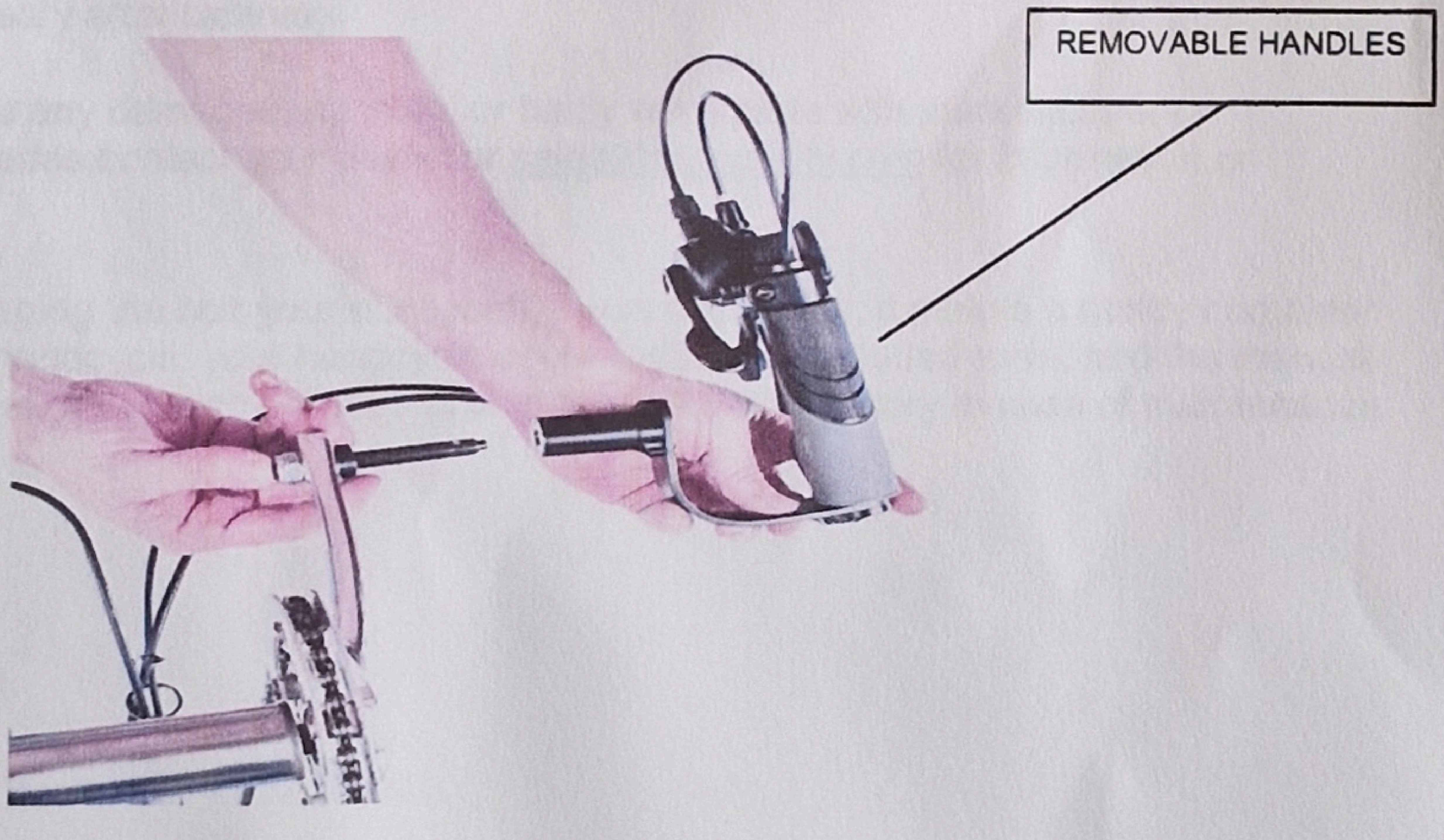
Set handcranks so that your arms are slightly bent, not locked and it clears your legs on the down stroke.


HANDCRANK
FRAME QUICK RELEASE PIN
COUPLERS
HANDCRANK ADJUSTMENT SCREWS
V-BRAKE
DISC BRAKE
PINS & CLAMPS
FRAME ADJUSTMENT SCREWS

3. Controls

Five power assist levels with fingertip control of brakes and gear shifter


DISC BRAKE LEVER
V-BRAKE & SHIFTER LEVERS
DISPLAY & CONTROLS


REMOVABLE HANDLES

4. Maintenance

Inspection / Maintenance Item	Initially	Weekly	6 Months
Check and Tighten Hardware	✓	✓	
Brake Pad Wear			✓

All screws must be tightened using a torque limiter wrench (included in packaging).

Only use the included smart charger when charging your battery. **You must recharge the battery at least every two months if it is not being used or risk a permanent decrease in capacity.**

Operation and storage temperatures must not exceed 0 - 100°F (-20° - 40°C).

The eDragonfly is water-resistant, not waterproof. We recommend covering the battery and controller with a plastic bag if you're caught in the rain.

Clean the handcycle with a damp cloth. Do not soak or spray with water or use detergent. Lubricate as necessary after cleaning.

Immediately replace any damaged, missing, or badly worn parts with manufacturer or approved parts. Please contact your dealer or sales@riomobility.com for information on replacement parts.

We recommend keeping the box your eDragonfly™ was shipped in; it makes a handy container for storage of your handcycle, your handcycle accessories, the included tools, and the manual for storage and travel. It can also be used to ship the unit to the factory in case of maintenance or warranty repairs.

5. Troubleshooting

When climbing a hill, the front wheel slips.

The front wheel is too far forward of your center of gravity. Please adjust the handcycle so that the front wheel is as close as possible to the footrest without interfering while driving straight or turning. If possible, you may also want to move the rear axles of your wheelchair further back. When climbing hills, leaning forward in your chair may be necessary.

Check that the front caster wheels are at least 5 cm / 2 inches off the ground when the handcycle is installed.

The eDragonfly™ won't turn on.

Make sure that the battery is fully charged. Ensure that both power switches (on the battery and on the handlebar) are in the **ON** position.

Error Codes

01_info Throttle Abnormality:

Check all wire connections between the sensor on the crank. Contact your dealer if the problem persists.

03_info Motor Hall Signal Abnormality:

Check all wire connections. Contact your dealer if the problem persists.

06_info Motor or Controller Short Circuit Abnormality:

Check the wire connections between the controller and hub motor. Contact your dealer if the problem persists.

Refer to the display manual for more troubleshooting information.

6. Safety

Safety Checklist

- A helmet and safety belt are recommended.
- **ALWAYS** engage the wheel locks on your wheelchair before attaching or detaching the handcycle.
- **ALWAYS** check to make sure that your latches are fully engaged before operating your handcycle.
- Check to make sure all nuts and bolts are tight and all latches are secured.
- Make sure the hand brakes work properly before riding your handcycle.
- Do not add any parts or accessories not authorized by Rio Mobility to your handcycle. Any addition could be unsafe and will void your warranty.

Before You Ride

Make sure that your eDragonfly™ is installed, adjusted, and maintained properly. Do not use the eDragonfly™ until you and your health care professional determine that you have the ability to use it safely in an uncontrolled environment.

Use your wheelchair as described in your wheelchair manual and use the eDragonfly™ in the same safe manner that you would a wheelchair with pushrims. Follow all additional warnings and instructions for the eDragonfly™ in this manual.

Outdoor Use

Always watch out for traffic and pedestrians when riding on the road and sidewalk and follow all traffic regulations. Follow any and all local regulations that apply to this device.

The eDragonfly is water-resistant, not waterproof. We recommend covering the battery and controller with a plastic bag if you're caught in the rain.

Turning Stability

Always mind your speed, especially when turning. You should have full control of your wheelchair at all times. Do not exceed the maximum allowable speed recommended by your wheelchair manufacturer.

Three-wheeled vehicles are less stable in turns compared to wheelchairs alone, so be careful to keep all three wheels on the ground and moderate your speed when approaching curves.

Be careful when reaching and leaning left or right from your wheelchair with your handcycle attached — the longer wheelbase makes it less stable in sideways leans than your regular wheelchair. Narrow wheelchairs are less stable in general, so be extra careful if your wheelchair is particularly narrow.

Obstacles

Be careful going over bumps and curbs over 2 inches (50mm) high. Your front casters may contact these surfaces, causing a loss of control. Use your pushrims to get over bumps, **NOT** the handcycle. You should approach bumps and curbs straight on and at low speed to avoid injury or damage to your wheelchair. Your return spring should keep the front wheel straight, freeing up your hands for the pushrims. Be aware of road surfaces, especially on inclines and declines. Watch out for water, ice, and oil film.

Transferring

DO NOT attempt to transfer into or out of your chair with the EDragonfly™ attached. You **MUST** detach the handcycle before transferring.

General Notes & Precautions

Mind your fingers and hands when using your handcycle.

Keep children away from your handcycle to avoid possible injury to both you and the child.

Do not carry anything that obstructs your view or interferes with the handlebar operation.

Do not put weight on the frame (objects or people).

This handcycle is meant for everyday recreational or general sporting use and is not intended for use in competition.

Rio Mobility is not responsible for any damage or injury due to misuse of your handcycle.

7. Limited Warranty

Rio Mobility warrants the eDragonfly™ for one (1) year from the date of initial consumer purchase. This warranty covers any defects in materials and workmanship.

Rio Mobility warrants the lithium Ion battery for three (3) months from the date of initial purchase. This covers any defects in materials and workmanship.

This warranty is only available for the original owner or purchaser and is non-transferable.

Limitations

This warranty is **VOID** if:

- **Assembly and installation is not performed according to the instructions**
- **Preventative and routine maintenance has not been performed**
- **The serial number is removed or altered**
- **The hub is disassembled**
- **The handcycle is used in any competitive event**
- **The handcycle is used in stunt riding, jumping, or similar activity**
- **The handcycle is submerged in or sprayed with water; includes accidental exposure such as rain (applies mainly to electrical parts)**
- **The handcycle is used in a manner contrary to the instructions outlined in the Owner's Manual**
- **Any modifications are made to the device.**

Please contact your dealer for installation, service, or warranty needs.